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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,438	02/14/2002	Joel J. Gummesson	399429	8724

30954 7590 02/10/2005

LATHROP & GAGE LC
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KANSAS CITY, MO 64108

EXAMINER

MCCLENDON, SANZA L

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,438

Applicant(s)

GUMMESON, JOEL J.

Examiner

Sanza L McClendon

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In response to the Amendment received on November 12, 2004, the examiner has carefully considered the amendments.

Response to Arguments

2. Applicant's arguments filed November 12, 2004 have been fully considered but they are not persuasive. Applicant appears to be arguing that the UV curable resin as taught in the cited prior art (Tanabe EP 1036831) is not dilutable in an aqueous carrier medium and, additionally, the claimed invention does not employ a monomer having tri- or higher functional reactive groups. The examiner respectfully disagrees. Applicant has employed open claim language to the claims and does not expressly exclude using other components, such as monomer having tri- or higher functional reactive groups. The UV curable resin as taught by Tanabe et al are low molecular weight oligomers and are used to dissolve/disperse the monomer present, and thusly, are deemed by the examiner as being in a liquid state verses being a solid or semi-solid, which the examiner deems as being water dilutable/dispersible unless applicant has information to the contrary. Additionally, said polyurethane resin as taught by Tanabe et al are in an aqueous dispersion per examples 1a-5a. Therein appears Tanabe et al does teach aqueous dilutable UV curable resins and is still deemed to anticipate applicant's claimed invention.

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 44-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanabe et al (EP 1 036 831 A1).

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Tanabe et al teaches photocurable ink compositions for ink-jet recording. Said ink comprises a colorant, a urethane oligomer, a reactive monomer, a photopolymerization initiator, and an aqueous solvent. Said urethane oligomers can comprise polyester, polybutadiene, polyether, and polyol backbones, which appear to anticipate claims 45-46 and 48 if a polyester backbone is selected. Said urethane can be found in amounts from 3 to 30% by weight and per examples 1a-5a the urethane acrylates are taught to be in the form of an aqueous dispersion. Said photopolymerization initiators can be selected from the list in paragraph 0028-0030 in amounts of at least 1.5 wt% as seen in the examples. This anticipates claim 44 and 56. Said colorant can be a pigment dispersible in water and/or a dye dispersible in water. This anticipates claim 55. Tanabe et al teaches said aqueous solvent comprises water and a water-soluble organic solvent (see paragraphs 0041 to 0046). Said water-soluble organic solvent comprises 0.05 to 5% of a low-boiling organic solvent (such as methanol, ethanol, n-butanol and the like), 5 to 40% of a high-boiling organic solvent, and 0.1 to 40% by weight of a sugar alcohol. Said water is added to balance out the ink composition to 100-wt%. These ranges appear to anticipate claims 52-53 and the low-boiling organic solvents, such as methanol and n-butanol appear to anticipate the alcohol derivatives in claim 54.

Tanabe et al teaches depositing said ink composition onto a recording medium followed by light irradiation to cure said ink composition. In addition, Tanabe et al teaches that the aqueous solvent can be removed by heating before polymerization to improve the efficiency of the polymerization reaction of the ink composition. This appears anticipates the water-fast image of claim 44 and the drying of the UV resin in claim 49. Per the examples, Tanabe et al teaches adding from 33% of an aqueous dispersion of a pigment, 34% of a water-dispersed urethane resin (this appears to anticipate claim 47), 1.5% of a monomer, 1.5% of a photoinitiator, and 30% water. The examiner deems that there is at least 49% by weight urethane resin in the composition on a non-aqueous carrier bases, especially since Tanabe et al teaches dissolving/dispersing the resin in the monomer, adding the photoinitiator and other additive before dispersing in the water—see page 6, paragraph [0049]. Therefore claims 50-51 are deemed anticipated.

Claims 44-56 are anticipated by the reference.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanza L McClendon whose telephone number is (571) 272-1074. The examiner can normally be reached on Monday through Friday 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sanza L McClendon
Examiner
Art Unit 1711

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A handwritten signature in black ink, appearing to read 'James J. Seidleck', positioned above the printed name.

James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700